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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/987,961	11/16/2001	Toshiyuki Waida	024938-00001	7887

		EXAMINER
7590 11/30/2004		MARIAM, DANIEL G

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ART UNIT	PAPER NUMBER
2621	

DATE MAILED: 11/30/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

		Application No.	Applicant(s)
Office Action Summary		09/987,961	WAIDA ET AL.
		Examiner	**Art Unit**	
		DANIEL G MARIAM	2621	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE <u>3</u> MONTH(S) FROM
THE MAILING DATE OF THIS COMMUNICATION.
- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed
  after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
  Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any
  earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☐ Responsive to communication(s) filed on _____.

2a)☐ This action is **FINAL.**   2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is
closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-20* is/are pending in the application.

    4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-20* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *16 November 2001* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

    Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

    a)☒ All   b)☐ Some * c)☐ None of:

        1.☒ Certified copies of the priority documents have been received.

        2.☐ Certified copies of the priority documents have been received in Application No. _____.

        3.☐ Copies of the certified copies of the priority documents have been received in this National Stage
application from the International Bureau (PCT Rule 17.2(a)).

    * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)

2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
    Paper No(s)/Mail Date *11/16/2001*.

4) ☐ Interview Summary (PTO-413)
    Paper No(s)/Mail Date. _____ .

5) ☐ Notice of Informal Patent Application (PTO-152)

6) ☐ Other: _____.

DETAILED ACTION

Claim Rejections - 35 USC § 101

1.   Claim 17 is rejected under 35 U.S.C. 101 because the claimed invention is directed to

non-statutory subject matter. Claim 17 recites in part, the limitation "A pattern identification

program for identifying a predetermined pattern contained in an image" is non-statutory. A

program is functional descriptive material, and is only statutory when embodied in a computer

readable medium. Applicants may overcome this rejection by rewriting the claim as "A pattern

identification program stored on a computer-readable medium for identifying a predetermined

pattern contained in an image . . . " (See MPEP 2106).

        Since claims 18-20 depend on claim 17, they are also rejected under 35 U.S.C. 101, for

the same reason set forth above for claim 49.

Claim Rejections - 35 USC § 102

2.   The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the

basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (e) the invention was described in (1) an application for patent, published under section 122(b), by another filed
> in the United States before the invention by the applicant for patent or (2) a patent granted on an application for
> patent by another filed in the United States before the invention by the applicant for patent, except that an
> international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this
> subsection of an application filed in the United States only if the international application designated the United
> States and was published under Article 21(2) of such treaty in the English language.

3.   Claims 1, 3-7 and 9-20 are rejected under 35 U.S.C. 102(e) as being anticipated by

Kamimura (6,678,427).

        With regard to claim 1, a pattern identification apparatus for identifying a predetermined

pattern, i.e., registered constituent element, contained in an image (See Fig. 1), said apparatus

comprising: a storage section, i.e., dictionary, in which data related to said predetermined pattern

is stored (See for example, item 16, in Fig. 1); a first collation section for making comparison

and collation between data related to an image, i.e., unregistered constituent element, such as

characters and/or lines (i.e., ruled lines), in a first area, i.e., the inputted slip where the

unregistered constituent element exists, greater than an area of said predetermined pattern, i.e.,

registered constituent element, in said image and said data related to said predetermined pattern

(See for example, item 13, in Fig. 1; and col. 3, lines 63-67) ; a cutting, i.e., extracting/selecting,

section for cutting out a second area smaller than said first area from said first area based on the

result of comparison carried out by said first collation section (See for example, col. 5, lines 21-

57); a second collation section (which corresponds to item 14, in Fig. 1) for making comparison

and collation between data related to an image in said second area and said data related to said

predetermined pattern, and an identification section (item 15, in Fig. 1) for identifying said

predetermined pattern contained in said image based on the result of comparison carried out by

said second collation section (See for example, col. 5, line 58 through col. 6, line 16).

With regard to claim 3, the pattern identification apparatus according to claim 1, wherein

said data related to said predetermined pattern stored in said storage section comprises

characteristic data representative of horizontal and vertical characteristics, i.e., frame or ruled

lines comprised of vertical and horizontal lines, in said predetermined pattern, said first collation

section comprises a first conversion section for converting image data in said first area into

characteristic data representative of horizontal and vertical characteristics, and compares and

collates said characteristic data converted by said first conversion section with said characteristic

data of said predetermined pattern, and said second collation section comprises a second

conversion section for converting image data in said second area into characteristic data

representative of horizontal and vertical characteristics, and compares and collates said

characteristic data converted by said second conversion section with said characteristic data of

said predetermined pattern (See for example, col. 1, lines 60-62; col. 3, lines 41-50; and col. 4,

lines 39-63).

With regard to claim 4, the pattern identification apparatus according to claim 3, wherein

said characteristic data obtained by said first and second conversion sections are normalized, i.e.,

correct, change (See col. 8, line 55 through col. 9, line 4).

With regard to claim 5, the pattern identification apparatus according to claim 1, wherein

said storage section stores a plurality of kinds of different patterns, i.e., character, lines, as

patterns to be identified (See for example, col. 1, line 60 through col. 2, line 2).

With regard to claim 6, the pattern identification apparatus according to claim 5, wherein

said storage section stores data related to an area of each of said plurality of kinds of patterns

contained in said image, and said first area is determined based on data related to said areas

stored in said storage section (See for example, col. 5, line 30 through col. 6, line 5).

With regard to claim 7, claim 1 encompasses the limitation of this claim, and rejected the

same as claim 1. Thus, argument analogous to that presented above for claim 1 is applicable to

claim 7.

Claims 9, 10, 11 and 12 are rejected the same as claims 3, 4, 5 and 6 respectively. Thus,

arguments similar to those presented above for claims 3, 4, 5, and 6 above are respectively

applicable to claims 9, 10, 11 and 12.

Claims 13 and 15 are rejected the same as claim 1 except claims 13 and 15 are method

claims. Thus, argument similar to that presented above for claim 1 is applicable to claims 13 and

15.

With regard to claim 14, the pattern identification method according to claim 13, further

comprising an image pick-up step provided between said first step and said second step for

obtaining said image by picking up said image by means of an image pick-up device (See item

10, in Fig. 1; and col. 4, lines 30-33).

With regard to claim 16, the pattern identification method according to claim 13, wherein

said image contains any of a plurality of kinds of different patterns, i.e., characters, lines, and

said plurality of kinds of different patterns are stored as predetermined patterns in said first step

(See for example, col. 1, line 60 through col. 2, line 2), and at least said second through fourth

steps are repeated (Kamimura identifies the patterns based on three criterions or conditions) for

each of said plurality of kinds of different patterns (See for example, col. 4, lines 38-52; col. 3,

lines 15-65; and Figs. 2-4).

Claim 17 is rejected the same as claim 1. Thus, argument similar to that presented above

for claim 1 is applicable to claim 17. Kamimura further discloses a pattern identification

program for identifying a predetermined pattern contained in an image, wherein said program is

executed by a computer (this feature is considered inherent within the document identification

registration system of Fig. 1 because an identification program is required to identify the patterns

of the digital picture data that is received by the system of Figure 1).

With regard to claim 18, the pattern identification program according to claim 17, further comprising an image pick-up step provided between said first step and said second step for obtaining said image by picking up said image by means of an image pick-up device, said image pick-up step being executed by said computer (See item 10, in Fig. 1; and col. 4, lines 30-33).

Claim 19 is rejected the same as claim 1. Thus, argument similar to that presented above for claim 1 is applicable to claim 19.

With regard to claim 20, the pattern identification program according to claim 17, wherein said image contains any of a plurality of kinds of different patterns, i.e., characters, lines, and said plurality of kinds of different patterns are stored as predetermined patterns in said first step (See for example, col. 1, line 60 through col. 2, line 2), and said second through fourth steps are executed for each of (Kamimura identifies the patterns based on three criterions or conditions) said plurality of kinds of different patterns by said computer (See for example, col. 4, lines 38-52; col. 3, lines 15-65; and Figs. 2-4).

Allowable Subject Matter

4.   Claims 2 and 8 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims. The closest prior art of Kamimura does not teach or fairly suggest wherein the first collation section carries out comparison and collation while shifting the predetermined pattern relative to the image in the first area one unit area by one unit area which constitutes data related to the image, thereby to calculate a difference level between the image in the first area and the predetermined pattern, and the cutting section cuts out the second area

based on an amount of shift of the predetermined pattern relative to the image in the first area at

the time when the difference level meets a predetermined requirement. It is for this reason in

combination with all of the other elements of the claims that claims 2 and 8 would be allowable

if rewritten in independent form including all of the limitations of the base claim and any

intervening claims.

Conclusion

5.   The prior art made of record and not relied upon is considered pertinent to applicant's

disclosure. US Patent Numbers: 5396588, 5696838, 6327387, 6477275, 6493465, 6584224, and

6788829.

6.   Any inquiry concerning this communication or earlier communications from the

examiner should be directed to DANIEL G MARIAM whose telephone number is 703-305-

4010. The examiner can normally be reached on M-F (7:00-4:30) FIRST FRIDAY OFF.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's

supervisor, LEO BOUDREAU can be reached on 703-305-4607. The fax phone number for the

organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent

Application Information Retrieval (PAIR) system. Status information for published applications

may be obtained from either Private PAIR or Public PAIR. Status information for unpublished

applications is available through Private PAIR only. For more information about the PAIR

system, see http://pair-direct.uspto.gov. Should you have questions on access to the

Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

DANIEL MIRIAM
PRIMARY EXAMINER

November 22, 2004